STS-107 MISSION MANAGEMENT TEAM (MMT) MINUTES
Monday, January 27, 2003

The MMT was convened by the chairman, Ms. Linda Ham at 8:00 a.m. CST. All members were in attendance at JSC or via teleconference.

Mr. Phil Engelauf of the Mission Operations Directorate (MOD) reported that the crew and the Orbiter were doing well. Propulsive consumables margins are approximately 500 lbs. for the Forward Reaction Control System (FRCS) and 900 lbs. for the Aft RCS (ARCS). Now that the end of mission attitude timeline has stabilized, the non-propulsive cryogenic margin projections have been lowered to 2 days, 7 hours.

Three SPACEHAB In-Flight Maintenance (IFM) procedures were developed to inspect and clean the failed Water Separator Assembly (WSA) and help lower the Research Double Module (RDM) temperature. However, since other workarounds lowered the RDM temperature, and it is not believed that there is any spilled water under the RDM floor, MOD recommends non-implementation of these IFM's. Ms. Ham asked that the water investigation IFM be implemented since it is only 15 minutes and the Spacehab recommend it be done. The RDM Water Pump Package 1 (WPP1) delta pressure has been decaying at the rate of 0.5 psid/day, however, it is not expected to reach the failed level during the mission.

Mr. Engelauf also noted that the orbit adjust plan was in work and that a decision could be made as late as EOM + 1 day to implement a burn to pick up a second KSC landing attempt for the EOM + 4 days landing opportunity. The upcoming dual radiator deploy has been changed to a single radiator deploy at MET 11/13:00 with re-stow occurring at MET 14/18:00. The global virus that was experienced yesterday temporarily interrupted crew E-mail. Finally, a Columbia and ISS Alpha ship-to-ship Public Affairs Office (PAO) event is scheduled later today.

Mr. Don McCormack, Shuttle MER Manager, reported that the MER completed their assessment of the potential tile damage resulting from the ascent foam debris hit. Mr. McCormack confirmed that based on the estimated foam debris size, the worst damage would be a post landing turn around impact only. No "burn through" would be expected and, therefore, not a safety of flight concern.

Ms. Vanessa Ellerbe, STS-107 Flight Manager, reported that the Animal Enclosure Module (AEM) mufflers had been reinstalled to attenuate the RDM noise level. There is no change to the command and data situation and payloads are operating nominally. A BIOPACK IFM to unclog a filter was unsuccessful and the freezer/cooler, incubator, and centrifuge have been un-powered, however, power remains available to run an internal fan and portable Glovebox to process the remaining samples. The Combustion Module-2 (CM-2)/SOFBALL payload successfully completed all 15 investigations. MEIDEX reported a successful real-time digital video downlink and a dust storm sighting with expectations for more sightings.

Ms. Ellerbe added that the NSTS 07700 Nominal End of Mission (NEOM) downweight waiver was in work and that a preliminary Thermal/Structural Envelope Program (TSEP) analysis indicated satisfactory results for a 234,800 lb. NEOM downweight. Mr. McCormack added that the analysis was complete and that the MER concurred that this downweight was acceptable for flight control, thermal, stress, and landing gear & tires.

Mr. Don Noah, representing Space Shuttle Systems Integration, reported that analysis had been completed for the 233,700 lb NEOM downweight case and determined to be within the certification boundary provided by the Space Shuttle Main Engine (SSME) project. This is not a safety of flight issue but rather a SSME reuse and maintenance issue. The Structures Working Group would be asked to confirm that their pre-flight cargo interface loads assessments would envelope the 234,800 lb case.

Ms. Ham closed the meeting and announced the next MMT meeting and entry briefing is scheduled for Thursday, January 30, 2003 at 8:00 a.m. CST.

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Ms. Linda Ham
Chairman, Mission Management Team